AMENDMENT TO THE CLAIMS

Claim 1. (Currently amended) An active oxygen barrier composition, comprising:

an oxygen barrier polymer, an oxygen scavenging polymer, and an oxidation catalyst, wherein the backbone of the oxygen scavenging polymer ~~comprises an ethylenic backbone~~ is ethylenic and the oxygen scavenging polymer comprises at least one cyclic olefinic pendant group.

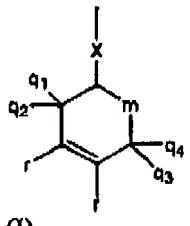
Claim 2. (Original) The composition of claim 1, wherein the composition has an oxygen transmission rate at least 5 times lower than that of the oxygen barrier polymer alone.

Claim 3. (Original) The composition of claim 1, wherein the oxygen barrier polymer is selected from polymers or copolymers of vinyl alcohol, polyesters, polymers or copolymers of vinylidene dichloride, polymers or copolymers of epoxies, polysulfones, polymers or copolymers of acrylonitrile, polymers or copolymers of isocyanates, or polyamides other than MXD6.

Claim 4. (Original) The composition of claim 3, wherein the polyamides other than MXD6 are nylon 6; nylon 6,6; nylon 6,12; and amorphous polyamide.

Claim 5. (Cancelled)

Claim 6. (Original) The composition of claim 1, wherein the cyclic olefinic pendant group is a cycloalkenyl group having structure I:



(I)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 7. (Original) The composition of claim 6, wherein q_1, q_2, q_3, q_4, r, are each hydrogen and n is 1.

Claim 8. (Previously presented) The composition of claim 7, wherein the oxygen scavenging polymer is ethylene/vinyl cyclohexene copolymer (EVCH).

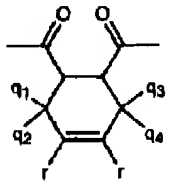
Claim 9. (Original) The composition of claim 6, wherein X is selected from:

$-O-(CHR)_n-$; $-(C=O)-O-(CHR)_n-$; $-NH-(CHR)_n-$; $-O-(C=O)-(CHR)_n-$; $-(C=O)-NH-(CHR)_n-$; or $-(C=O)-O-CHOH-CH_2-O-$.

Claim 10. (Original) The composition of claim 9, wherein the oxygen scavenging polymer is a homopolymer or a copolymer of cyclohexenylmethyl acrylate.

Claim 11. (Original) The composition of claim 10, wherein the oxygen scavenging polymer is ethylene/methyl acrylate/cyclohexenylmethyl acrylate terpolymer (EMCM), ethylene/cyclohexenylmethyl acrylate copolymer (ECHA), or cyclohexenylmethyl acrylate homopolymer (CHAA).

Claim 12. (Withdrawn) The composition of claim 1, wherein the oxygen scavenging polymer is a polyester comprising structure II or structure III:



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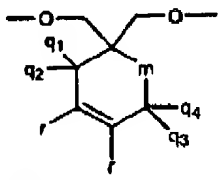


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

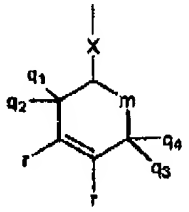
Claim 13. (Withdrawn) The composition of claim 12, wherein in structure II q_1, q_2, q_3, q_4, and r are hydrogen.

Claim 14. (Withdrawn) The composition of claim 12, wherein in structure III q_1, q_2, q_3, q_4, and r are hydrogen and n is 1.

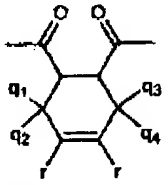
Claim 15. (Original) The composition of claim 1, further comprising a compatibilizer.

Claim 16. (Withdrawn) The composition of claim 15, wherein the compatibilizer is selected from anhydride-modified or acid-modified poly(ethylene acrylate), poly(ethylene vinyl acetate), or polyethylene.

Claim 17. (Original) The composition of claim 15, wherein the compatibilizer comprises a block copolymer of (i) EVOH, PVDC, PET, PEN, or polyamide other than MXD6 and (ii) a polyolefin comprising a cycloalkenyl pendant group having structure I, or a polyester group having structure II or structure III:



(I)



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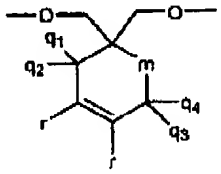


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 18. (Original) The composition of claim 17, wherein the compatibilizer comprises a block copolymer of EVOH, PET, PVDC, PEN, or polyamide other than MXD6 with EMCM, ECHA, EVCH, or CHAA.

Claim 19. (Original) The composition of claim 1, wherein the oxygen scavenging polymer is present as an insoluble filler.

Claim 20. (Original) The composition of claim 1, wherein the oxidation catalyst comprises a transition metal selected from cobalt, copper, nickel, iron, manganese, rhodium, or ruthenium.

Claim 21. (Original) The composition of claim 20, wherein the oxidation catalyst is a salt comprising a counterion selected from C_1-C_{20} alkanoates.

Claim 22. (Original) The composition of claim 21, wherein the oxidation catalyst is cobalt oleate, cobalt stearate, or cobalt neodecanoate.

Claim 23. (Original) The composition of claim 1, further comprising a photoinitiator.

Claim 24. (Original) The composition of claim 23, wherein the photoinitiator is selected from benzophenone derivatives containing at least two benzophenone moieties and having the formula:

$A_a(B)_b$

wherein

A is a bridging group selected from sulfur; oxygen; carbonyl; -SiR"$_2$-, wherein each R" is individually selected from alkyl groups containing from 1 to 12 carbon atoms, aryl groups containing 6 to 12 carbon atoms, or alkoxy groups containing from 1 to 12 carbon atoms; -NR"'-, wherein R"' is an alkyl group containing 1 to 12 carbon atoms, an aryl group containing 6 to 12 carbon atoms, or hydrogen; or an organic group containing from 1 to 50 carbon atoms;

a is an integer from 0 to 11;

B is a substituted or unsubstituted benzophenone group; and

b is an integer from 2 to 12.

Claim 25. (Original) The composition of claim 24, wherein the photoinitiator is selected from dibenzoyl biphenyl, substituted dibenzoyl biphenyl, benzoylated terphenyl, substituted benzoylated terphenyl, tribenzoyl triphenylbenzene, substituted tribenzoyl triphenylbenzene, benzoylated styrene oligomer, or substituted benzoylated styrene oligomer.

Claim 26. (Original) The composition of claim 1, further comprising an antioxidant.

Claim 27. (Original) The composition of claim 26, wherein the antioxidant is selected from 2,6-di(t-butyl)-4-methylphenol(BHT), 2,2'-methylene-bis(6-t-butyl-p-cresol), triphenylphosphite, tris-(nonylphenyl)phosphite, vitamin E, tetra-bismethylene 3-(3,5-ditertbutyl-4-hydroxyphenyl)-propionate methane, or dilaurylthiodipropionate.

Claim 28. (Currently amended) A packaging article, comprising:

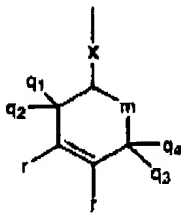
at least one active oxygen barrier layer comprising an oxygen barrier polymer and an oxygen scavenging polymer, wherein the backbone of the oxygen scavenging polymer ~~comprises an ethylenic backbone~~ is ethylenic and the oxygen scavenging polymer comprises at least one cyclic olefinic pendant group.

Claim 29. (Original) The packaging article of claim 28, wherein the oxygen barrier polymer is selected from polymers or copolymers of vinyl alcohol, polyesters, polymers or copolymers of vinylidene dichloride, polymers or copolymers of epoxies, polysulfones, polymers or copolymers of acrylonitrile, polymers or copolymers of isocyanates, or polyamides other than MXD6.

Claim 30. (Original) The packaging article of claim 29, wherein the polyamides other than MXD6 are nylon 6; nylon 6,12; nylon 6,6; and amorphous polyamide.

Claim 31. (Cancelled)

Claim 32. (Original) The packaging article of claim 28, wherein the cyclic olefinic pendant group is a cycloalkenyl group having structure I:



(I)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 33. (Original) The packaging article of claim 32, wherein q_1, q_2, q_3, q_4, r, are each hydrogen and n is 1.

Claim 34. (Previously presented) The packaging article of claim 33, wherein the oxygen scavenging polymer is ethylene/vinyl cyclohexene copolymer (EVCH).

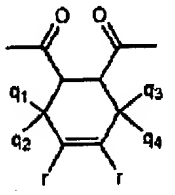
Claim 35. (Original) The packaging article of claim 32, wherein X is selected from:

$-O-(CHR)_n-$; $-(C=O)-O-(CHR)_n-$; $-NH-(CHR)_n-$; $-O-(C=O)-(CHR)_n-$; $-(C=O)-NH-(CHR)_n-$; or $-(C=O)-O-CHOH-CH_2-O-$.

Claim 36. (Original) The packaging article of claim 35, wherein the oxygen scavenging polymer is a homopolymer or a copolymer of cyclohexenylmethyl acrylate.

Claim 37. (Original) The packaging article of claim 36, wherein the oxygen scavenging polymer is ethylene/methyl acrylate/cyclohexenylmethyl acrylate terpolymer (EMCM), ethylene/cyclohexenylmethyl acrylate copolymer (ECHA), or cyclohexenylmethyl acrylate homopolymer (CHAA).

Claims 38. (Withdrawn) The packaging article of claim 28, wherein the oxygen scavenging polymer is a polyester having structure II or structure III:



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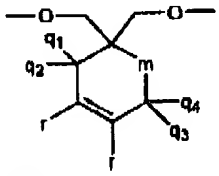


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

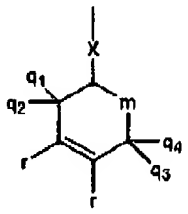
Claim 39. (Withdrawn) The composition of claim 38, wherein in structure II q_1, q_2, q_3, q_4, and r are hydrogen.

Claim 40. (Withdrawn) The composition of claim 38, wherein in structure III q_1, q_2, q_3, q_4, and r are hydrogen and n is 1.

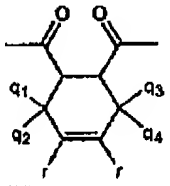
Claim 41. (Original) The packaging article of claim 28, wherein the oxygen barrier layer further comprises a compatibilizer.

Claim 42. (Withdrawn) The packaging article of claim 41, wherein the compatibilizer is selected from anhydride-modified or acid-modified poly(ethylene acrylate), poly(ethylene vinyl acetate), or polyethylene.

Claim 43. (Original) The packaging article of claim 41, wherein the compatibilizer comprises a block copolymer of (i) EVOH, PVDC, PET, polyethylene napthalate, or polyamide other than MXD6 and (ii) a polyolefin comprising a cycloalkenyl pendant group having the structure I, or a polyester having structure II or structure III:



(I)



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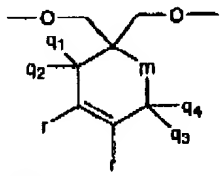


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 44. (Original) The packaging article of claim 43, wherein the compatibilizer comprises a block copolymer of EVOH, PET, PVDC, polyethylene naphthalate, or polyamide other than MXD6 with EMCM, ECHA, EVCH, or CHAA.

Claim 45. (Original) The packaging article of claim 28, wherein the oxygen scavenging polymer is present in the oxygen barrier layer as an insoluble filler.

Claim 46. (Original) The packaging article of claim 28, further comprising a transition metal salt in the oxygen barrier layer or a layer adjacent to the oxygen barrier layer.

Claim 47. (Original) The packaging article of claim 46, wherein the transition metal is selected from cobalt, copper, nickel, iron, manganese, rhodium, or ruthenium.

Claim 48. (Original) The packaging article of claim 47, wherein the transition metal salt comprises a counterion selected from C_1-C_{20} alkanoates.

Claim 49. (Original) The packaging article of claim 48, wherein the transition metal salt is cobalt oleate, cobalt stearate, or cobalt neodecanoate.

Claim 50. (Original) The packaging article of claim 28, further comprising a photoinitiator in the oxygen barrier layer.

Claim 51. (Original) The packaging article of claim 50, wherein the photoinitiator is selected from benzophenone derivatives containing at least two benzophenone moieties and having the formula:

$A_a(B)_b$

wherein

A is a bridging group selected from sulfur; oxygen; carbonyl; -SiR"2-, wherein each R" is individually selected from alkyl groups containing from 1 to 12 carbon atoms, aryl groups containing 6 to 12 carbon atoms, or alkoxy groups containing from 1 to 12 carbon atoms; -NR"'-, wherein R"' is an alkyl group containing 1 to 12 carbon atoms, an aryl group containing 6 to 12 carbon atoms, or hydrogen; or an organic group containing from 1 to 50 carbon atoms;

a is an integer from 0 to 11;

B is a substituted or unsubstituted benzophenone group; and

b is an integer from 2 to 12.

Claim 52. (Original) The packaging article of claim 51, wherein the photoinitiator is selected from dibenzoyl biphenyl, substituted dibenzoyl biphenyl, benzoylated terphenyl, substituted benzoylated terphenyl, tribenzoyl triphenylbenzene, substituted tribenzoyl triphenylbenzene, benzoylated styrene oligomer, or substituted benzoylated styrene oligomer.

Claim 53. (Original) The packaging article of claim 28, further comprising an antioxidant in the oxygen barrier layer.

Claim 54. (Original) The packaging article of claim 53, wherein the antioxidant is selected from 2,6-di(t-butyl)-4-methylphenol(BHT), 2,2'-methylene-bis(6-t-butyl-p-cresol), triphenylphosphite, tris-(nonylphenyl)phosphite, vitamin E, tetra-bismethylene 3-(3,5-ditertbutyl-4-hydroxyphenyl)-propionate methane, or dilaurylthiodipropionate.

Claim 55. (Previously presented) The packaging article of claim 28, further comprising a second oxygen barrier layer, wherein the second oxygen barrier layer does not comprise an oxygen scavenging polymer comprising an ethylenic backbone and at least one cyclic olefinic pendant group.

Claim 56. (Original) The packaging article of claim 55, wherein the second oxygen barrier layer comprises an oxygen barrier polymer selected from polymers or copolymers of vinyl alcohol, polyesters, polymers or copolymers of vinylidene dichloride, polymers or copolymers of epoxies, polysulfones, polymers or copolymers of acrylonitrile, polymers or copolymers of isocyanates, or polyamides other than MXD6.

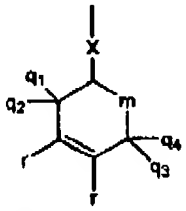
Claim 57. (Original) The packaging article of claim 28, further comprising a structural layer.

Claim 58. (Original) The packaging article of claim 57, wherein the structural layer comprises PET, polyamide, polypropylene, polyethylene, low density polyethylene, very low density polyethylene, ultra-low density polyethylene, high density polyethylene, polyvinyl chloride, ethylene-vinyl acetate, ethylene-alkyl (meth)acrylates, ethylene-(meth)acrylic acid, ethylene-(meth)acrylic acid ionomers, paperboard, or cardboard.

Claim 59. (Original) The packaging article of claim 28, further comprising an oxygen scavenging layer.

Claim 60. (Original) The packaging article of claim 59, wherein the oxygen scavenging layer comprises an oxygen scavenging polymer comprising an ethylenic backbone and at least one cyclic olefinic pendant group.

Claim 61. (Original) The packaging article of claim 60, wherein the cyclic olefinic pendant group is a cycloalkenyl group having structure I:



(I)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 62. (Original) The packaging article of claim 61, wherein q_1, q_2, q_3, q_4, r, are each hydrogen and n is 1.

Claim 63. (Original) The packaging article of claim 62, wherein the oxygen scavenging polymer is ethylene/vinyl cyclohexene copolymer (EVCH).

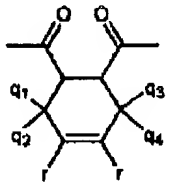
Claim 64. (Original) The packaging article of claim 61, wherein X is selected from:

-O-(CHR)$_n$-; -(C=O)-O-(CHR)$_n$-; -NH-(CHR)$_n$-; -O-(C=O)-(CHR)$_n$-; -(C=O)-NH-(CHR)$_n$-; or -(C=O)-O-CHOH-CH$_2$-O-.

Claim 65. (Original) The packaging article of claim 64, wherein the oxygen scavenging polymer is a homopolymer or a copolymer of cyclohexenylmethyl acrylate.

Claim 66. (Original) The packaging article of claim 65, wherein the oxygen scavenging polymer is ethylene/methyl acrylate/cyclohexenylmethyl acrylate terpolymer (EMCM), ethylene/cyclohexenylmethyl acrylate copolymer (ECHA), or cyclohexenylmethyl acrylate homopolymer (CHAA).

Claim 67. (Withdrawn) The packaging article of claim 60, wherein the oxygen scavenging polymer is a polyester comprising structure II or structure III:



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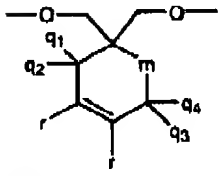


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is -(CH$_2$)$_n$-, wherein n is an integer from 0 to 4, inclusive; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 68. (Withdrawn) The composition of claim 67, wherein in structure II q_1, q_2, q_3, q_4, and r are hydrogen.

Claim 69. (Withdrawn) The composition of claim 67, wherein in structure III q_1, q_2, q_3, q_4, and r are hydrogen and n is 1.

Claim 70. (Original) The packaging article of claim 60, wherein the oxygen scavenging layer is a liner, coating, sealant, gasket, adhesive, non-adhesive insert, or fibrous mat insert in the packaging article.

Claim 71. (Original) The packaging article of claim 28, wherein the packaging article is in the form of a single layer flexible article, a multilayer flexible article, a single layer rigid article, or a multilayer rigid article.

Claim 72. (Currently amended) A method of making an active oxygen barrier composition comprising an oxygen barrier polymer and an oxygen scavenging polymer, comprising:

providing the oxygen barrier polymer and the oxygen scavenging polymer; and

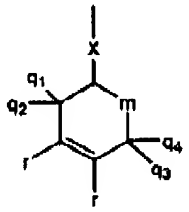
blending the oxygen barrier polymer and the oxygen scavenging polymer to form the oxygen barrier composition,

wherein the backbone of the oxygen scavenging polymer ~~comprises an ethylenic backbone~~ is ethylenic and the oxygen scavenging polymer comprises at least one cyclic olefinic pendant group.

Claim 73. (Original) The method of claim 72, wherein the oxygen barrier polymer is selected from polymers or copolymers of vinyl alcohol, polyesters, polymers or copolymers of vinylidene dichloride, polymers or copolymers of epoxies, polysulfones, polymers or copolymers of acrylonitrile, polymers or copolymers of isocyanates, or polyamides other than MXD6.

Claim 74. (Cancelled)

Claim 75. (Previously presented) The method of claim 72, wherein the cyclic olefinic pendant group is a cycloalkenyl group having structure I:



(I)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 76. (Original) The method of claim 75, wherein q_1, q_2, q_3, q_4, r, are each hydrogen and n is 1.

Claim 77. (Original) The method of claim 76, wherein the oxygen scavenging polymer is ethylene/vinyl cyclohexene copolymer (EVCH).

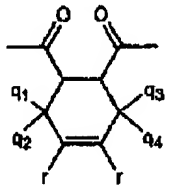
Claim 78. (Original) The method of claim 75, wherein X is selected from:

$-O-(CHR)_n-$; $-(C=O)-O-(CHR)_n-$; $-NH-(CHR)_n-$; $-O-(C=O)-(CHR)_n-$; $-(C=O)-NH-(CHR)_n-$; or $-(C=O)-O-CHOH-CH_2-O-$.

Claim 79. (Original) The method of claim 78, wherein the oxygen scavenging polymer is a homopolymer or a copolymer of cyclohexenylmethyl acrylate.

Claim 80. (Original) The method of claim 79, wherein the oxygen scavenging polymer is ethylene/methyl acrylate/cyclohexenylmethyl acrylate terpolymer (EMCM), ethylene/cyclohexenylmethyl acrylate copolymer (ECHA), or cyclohexenylmethyl acrylate homopolymer (CHAA).

Claim 81. (Withdrawn) The method of claim 72, wherein the oxygen scavenging polymer is a polyester comprising structure II or structure III:



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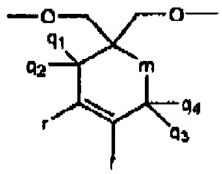


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

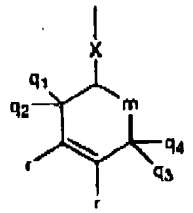
Claim 82. (Withdrawn) The method of claim 81, wherein in structure II q_1, q_2, q_3, q_4, and r are hydrogen.

Claim 83. (Withdrawn) The composition of claim 81, wherein in structure III q_1, q_2, q_3, q_4, and r are hydrogen and n is 1.

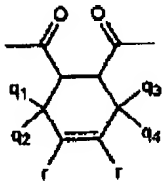
Claim 84. (Original) The method of claim 72, wherein the blending step further comprises blending a compatibilizer with the oxygen barrier polymer and the oxygen scavenging polymer.

Claim 85. (Withdrawn) The method of claim 84, wherein the compatibilizer is selected from anhydride-modified or acid-modified poly(ethylene acrylate), poly(ethylene vinyl acetate), or polyethylene.

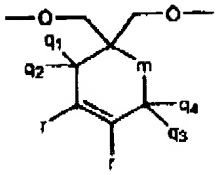
Claim 86. (Original) The method of claim 84, wherein the compatibilizer comprises a block copolymer of (i) EVOH, PVDC, PET, polyethylene napthalate, or polyamide other than MXD6 and (ii) a polyolefin comprising a cycloalkenyl pendant group having structure I, or a polyester having structure II or structure III:



(I)



(II)



(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 87. (Original) The method of claim 86, wherein the compatibilizer is a block copolymer of EVOH, PET, PVDC, polyethylene napthalate, or polyamide other than MXD6 with EMCM, ECHA, EVCH, or CHAA.

Claim 88. (Original) The method of claim 72, wherein the blending occurs during a reactive extrusion.

Claim 89. (Currently amended) A method of making an active oxygen barrier composition comprising an oxygen barrier polymer and an oxygen scavenging polymer, wherein the oxygen scavenging polymer is present as an insoluble filler, comprising:

providing the oxygen barrier polymer and the oxygen scavenging polymer, wherein the backbone of the oxygen scavenging polymer ~~comprises an ethylenic backbone~~ is ethylenic and the oxygen scavenging polymer comprises at least one cyclic olefinic pendant group;

cross-linking the oxygen scavenging polymer with itself, to form an insoluble oxygen scavenging polymer; and

mixing the oxygen barrier polymer and the insoluble oxygen scavenging polymer, to form the oxygen barrier composition.

Claim 90. (Currently amended) A method of forming an active oxygen barrier layer in a packaging article, comprising:

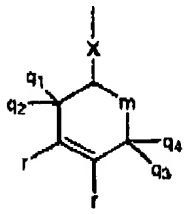
providing an oxygen barrier composition comprising an oxygen barrier polymer and an oxygen scavenging polymer, wherein the backbone of the oxygen scavenging polymer ~~comprises an ethylenic backbone~~ is ethylenic and the oxygen scavenging polymer comprises at least one cyclic olefinic pendant group; and

forming the composition into the packaging article or an active oxygen barrier layer thereof.

Claim 91. (Original) The method of claim 90, wherein the oxygen barrier polymer is selected from polymers or copolymers of vinyl alcohol, polyesters, polymers or copolymers of vinylidene dichloride, polymers or copolymers of epoxies, polysulfones, polymers or copolymers of acrylonitrile, polymers or copolymers of isocyanates, or polyamides other than MXD6.

Claim 92. (Cancelled)

Claim 93. (Previously presented) The method of claim 90, wherein the cyclic olefinic pendant group is a cycloalkenyl group having the structure I:



(I)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 94. (Original) The method of claim 93, wherein q_1, q_2, q_3, q_4, r, are each hydrogen and n is 1.

Claim 95. (Original) The method of claim 94, wherein the oxygen scavenging polymer is ethylene/vinyl cyclohexene copolymer (EVCH).

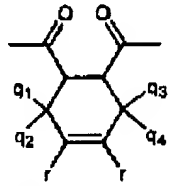
Claim 96. (Original) The method of claim 93, wherein X is selected from:

$-O-(CHR)_n-$; $-(C=O)-O-(CHR)_n-$; $-NH-(CHR)_n-$; $-O-(C=O)-(CHR)_n-$; $-(C=O)-NH-(CHR)_n-$; or $-(C=O)-O-CHOH-CH_2-O-$.

Claim 97. (Original) The method of claim 96, wherein the oxygen scavenging polymer is a homopolymer or a copolymer of cyclohexenylmethyl acrylate.

Claim 98. (Original) The method of claim 97, wherein the oxygen scavenging polymer is ethylene/methyl acrylate/cyclohexenylmethyl acrylate terpolymer (EMCM), ethylene/cyclohexenylmethyl acrylate copolymer (ECHA), or cyclohexenylmethyl acrylate homopolymer (CHAA).

Claim 99. (Withdrawn) The method of claim 90, wherein the oxygen scavenging polymer is a polyester structure II or structure III:



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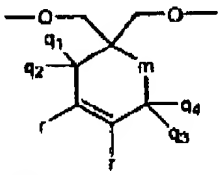


(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 100. (Withdrawn) The method of claim 99, wherein in structure II q_1, q_2, q_3, q_4, and r are hydrogen.

Claim 101. (Withdrawn) The method of claim 99, wherein in structure III q_1, q_2, q_3, q_4, and r are hydrogen and n is 1.

Claim 102. (Original) The method of claim 90, wherein the forming step comprises forming a transition metal salt into the active oxygen barrier layer or a layer adjacent to the active oxygen barrier layer of the packaging article.

Claim 103. (Original) The method of claim 90, wherein the active oxygen barrier layer further comprises a photoinitiator.

Claim 104. (Original) The method of claim 90, wherein the active oxygen barrier layer further comprises an antioxidant.

Claim 105. (Original) The method of claim 90, wherein the forming step further comprises forming a second oxygen barrier layer in the packaging article, wherein the second oxygen barrier layer does not comprise an oxygen scavenging polymer.

Claim 106. (Original) The method of claim 90, wherein the forming step further comprises forming a structural layer in the packaging article.

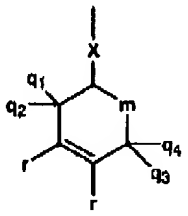
Claim 107. (Original) The method of claim 90, wherein the forming step further comprises forming an oxygen scavenging layer in the packaging article.

Claim 108. (Original) The method of claim 90, wherein the forming step further comprises forming the packaging article as a single layer flexible article, a multilayer flexible article, a single layer rigid article, or a multilayer rigid article.

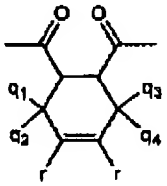
Claim 109. (Original) The method of claim 90, wherein the active oxygen barrier layer further comprises a compatibilizer.

Claim 110. (Original) The method of claim 109, wherein the compatibilizer is selected from anhydride-modified or acid-modified poly(ethylene acrylate), poly(ethylene vinyl acetate), or polyethylene.

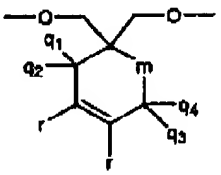
Claim 111. (Original) The method of claim 109, wherein the compatibilizer comprises a block copolymer of (i) EVOH, PET, polyethylene napthalate, or polyamide other than MXD6 and (ii) a polyolefin comprising a cycloalkenyl pendant group having structure I, or a polyester having structure II or structure III:



(I)



(II)



(III)

wherein q_1, q_2, q_3, q_4, and r are independently selected from hydrogen, methyl, or ethyl; m is $-(CH_2)_n-$, wherein n is an integer from 0 to 4, inclusive; X is null or a linking group; and, when r is hydrogen, at least one of q_1, q_2, q_3, and q_4 is also hydrogen.

Claim 112. (Original) The method of claim 111, wherein the compatibilizer is a block or grafted copolymer of EVOH, PET, polyethylene napthalate, or polyamide other than MXD6 with EMCM, EVCH, or CHAA.

Claim 113. (Original) The method of claim 109, wherein the compatibilizer is formed by reactive extrusion of monomers.

Claim 114. (Withdrawn) The method of claim 111, wherein the compatibilizer is formed by adding monomers comprising the ethylenic backbone and the cycloalkenyl group to a polymer of EVOH, PET, PVDC, polyethylene napthalate, or polyamide other than MXD6.

Claim 115. (Original) The method of claim 90, wherein the oxygen scavenging polymer is present in the oxygen barrier composition as an insoluble filler.